THE EARLIEST RECORD OF THE ?EXTINCT PLATYPUS FROG

Memoirs of the Queensland Museum 30(3):454. 1991. The Platypus Frog (Rheobatrachus silus) was only recently described by Liem (1973). He discovered the frog in a stream in Kondalilla National Park, 3km SW of Montville in the Blackall Range, southeast Queensland, on 17 May 1972. Subsequently, it was also found in the Conondale Range (Czechura, 1975). The frog's discovery caused a sensation because of its aquatic-adapted morphology. As well, the subsequent publication of its bizarre parental care of carrying the tadpoles in the stomach (Corben, Ingram and Tyler, 1974) met with incredulity (Tyler, 1983).

Probably what is most amazing about the frog is that it had not been discovered earlier. It is very distinctive and, from Queensland Museum records, collectors were visiting the areas where it was found since the early part of this century. However, the frog had been collected before the date of Liem's find, but overlooked.

As part of the process of auditing the Queensland Museum's vertebrate collections in the preparation of an atlas, all specimens of Australian frogs where re-identified. During this endeavour, an old specimen of the Platypus Frog. R. silus was discovered. The specimen, registration number J12778, was a juvenile and measured: SV 20.0, TL 8.0, TL/SV 40.0, HW 6.2, HW/SV 31.0, HW/TL 77.5, ED 2.5, ED/HW 40.3, EN 1.4, IN 1.6, EN/IN 87.5 (measurements and abbreviations follow Ingram and Corben, 1990). According to growth data in Ingram (1983), the specimen is a first year frog.

Heber A. Longman (1880-1954), subsequently Director of the Queensland Museum (Turner, 1986), collected the specimen at Montville. There is no date of collection but Czechura (in press) said Longman was probably at Montville in May, 1915. Czechura was commenting on a series of specimens (J12772-12777, 12779, 12780) of the ?extinct Southern Dayfrog (Taudactylus diurnus Straughan and Lee, 1966) that were the earliest known specimens of that species, but also overlooked. These were collected at the same time by Longman along with the Platypus Frog specimen. As to the date of collection, the series J12772–12780 was probably collected at the same time as the reptiles J2315 and 2318 (Cacophis krefftii and Gonocephalus spinipes respectively). These have exactly the same data but were registered on 10 May. 1915. In the least, it can be said that the Montville specimens where taken before that date.

This earliest known record of the Platypus Frog is important because the species is thought to be extinct or in danger of being so (Ingram, 1990). Czechura and Ingram (1990) noted that the last record of a wild frog was on 8 December, 1979. Interestingly, in the museum's register near the entry for the old Platypus Frog specimen is a pencilled annotation that was subsequently erased. It asks if the specimen is a new species. Ironically, 57 years passed before the species was formally described and then we were to know the frog for only seven years before it would disappear.

The existence of the old Montville specimens of *R. silus* and *T. diurnus* illustrates the value of museum collections in the study of biodiversity. Museums are repositories of historical information about species (Manning, 1991) and often have the only data that are known. With endangered species,

the historical information is of great importance in making management decisions for conservation. It is a necessity for workers in biodiversity to examine museum collections in their research. Apparently, neither Liem (1973) nor Straughan and Lee (1966) did so and thus missed valuable data. As well, the species could have been discovered earlier by other workers and, by the present, we might have had enough information to save the frogs.

Literature Cited

- CORBEN, C.J., INGRAM, G.J. AND TYLER, M.J. 1974. Gastric brooding: Unique form of parental care in an Australian frog. Science 186:946–947.
- CZECHURA, G.V. 1975. Notes on the frog fauna of Conondale Range, south east Queensland. Herpetofauna 7(2): 2–4.
 - (in press). The Blackall-Conondale Ranges: frogs, reptiles and fauna conservation. In Werren, G.L. and Kershaw, A.P. (eds), 'The rainforest legacy.' Vol. 2. (Australian Government Publishing Service: Canberra).
- CZECHURA, G.V. AND INGRAM, G.J. 1990. Taudactylus diurnus and the case of the disappearing frogs. Mem. Qd Mus. 29: 361–365.
- INGRAM, G.J. 1983. Natural history. 16-35. In Tyler, M.J. (ed.), 'The Gastric Brooding Frog.' (Croom Helm: London).
 - 1990. The mystery of the disappearing frog. Wildlife Australia 27(3): 6–7.
- INGRAM, G.J. AND CORBEN, C.J. 1990. Litoria electrica: a new treefrog from western Queensland. Mem. Qd Mus. 28:475–478.
- LIEM, D.S. 1973. A new genus of frog of the family Leptodactylidae from SE. Queensland, Australia. Mem. Qd Mus. 16:459–470.
- MANNING, R.B. 1991. The importance of taxonomy and museums in the 1990s. Mem. Qd Mus, 31:205-207.
- STRAUGHAN, I.R. AND LEE, A.K. 1966. A new genus and species of leptodactylid frog from Queensland. Proc. R. Soc, Qd 77: 63–66.
- TURNER, S. 1986. Heber Albert Longman. Mem. Qd Mus. 24:321–323
- TYLER, M.J. 1983. Introduction. 1-4. In Tyler, M.J. (ed.), 'The Gastric Brooding Frog.' (Croom Helm: London).

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